



Assignment 1

Requirements

This is a warm-up exercise. It should not be difficult, and for this reason you have just one week to finish it. It is pretty much just a minor modification of the second example program in the textbook, but it will get you started.

You are to write a program that expects four command-line arguments. If the program is named `hwk1`, for example, then it would be run with the command

```
hwk1 title text width height
```

where:

`title` is a string that will appear in the title bar of the window,

`text` is a string that will appear in the content area of the window, centered on all sides by a margin of 5 pixels,

`width` is a positive integer specifying the minimum width of the window, which might be larger if the text forces it to be, and

`height` is a positive integer specifying the minimum height of the window, which might be larger if the text forces it to be.

The program should error-check the command-line to make sure there are four arguments. If less, it should quit and display a message in the terminal window such as

```
usage: hwk1 title text width height
```

It should also make sure that the third and fourth arguments are positive integers that are not larger than 800 each. The window should have a close box and should destroy itself and quit when the close-box is clicked. The text in the window should be selectable, so that the user can select any portion of it and copy it.

Style

This program, like all others that you write in this class, should be properly documented. Examples of proper documentation will be available in the course home directory. It should include a preamble containing the program name, author, date of creation, description, usage, and build instructions, and any other notes that you think the reader should see. Variables should be named clearly, following the GTK+ style of being verbose and descriptive, as should functions and any other symbols you define. You can write this in C or C++, but I suggest you do this in C, since otherwise you will have to read the `gtkmm` reference manuals online. `Gtkmm` is installed on all lab machines.



Hints

All functions you will need are in Chapter 2 of the textbook, except for the string processing functions. I suggest you read about `atoi()` and `strtol()`.

Submission

Name this program `hwk1_username.c` or `hwk1_username.cc`, where `username` is the username you have on our UNIX system. Put the program in the directory

```
/data/yoda/b/student.accounts/cs493.73/projects/project1
```

on our file system. Make sure it is not readable by anyone but you (permission 700).